REMARKS

Upon entry of this amendment, claims 18 – 20 and 22 – 26 are all the claims pending in the application. Claims 1 – 17 and 21 have been canceled by this or a previous amendment. Claims 18 and 22 – 25 have been amended. No new matter has been added. In view of the above amendments and the following remarks, reconsideration and further examination are requested.

Applicants note that a number of editorial amendments have been made to the specification and abstract for grammatical and general readability purposes. Due to the number of changes made, a substitute specification and abstract are submitted herewith. No new matter has been added. Also enclosed is a marked-up copy of the original specification and abstract showing the changes incorporated into the substitute specification and abstract.

Applicants note that a replacement sheet is being submitted herewith for Figures 1 and 2. In the replacement sheets, the label "PRIOR ART" has been added. No new matter has been added.

Claim Rejections under 35 U.S.C. § 102

Claim 18 has been rejected under 35 U.S.C. § 102(b) as being anticipated by ISO/IEC 14496-2, 2nd Ed., Information technology--Coding of audio-visual objects--, Part 2: Visual, December 1, 2001 (hereinafter "ISO/IEC 14496-2"). Applicants respectfully traverse this rejection on the following basis. A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Independent claims 18 recites, *inter alia*:

"…obtaining a motion vector of a block located only in a corner of the co-located macroblock,…judging whether a size of the obtained motion vector is within a predetermined range or not; and performing motion compensation for the current block to generate a predictive image of the current block, based on a result of said judging." [*Emphasis added*]

These features are shown for example in Figures 7, 9, and 11.

In contrast, ISO/IEC 14496-2 discloses formation of motion vectors for the direct mode. *See* Sections 7.6, 7.6.9.5.1, and 7.8.7.3. In particular, in Section 7.8.7.3, motion vector decoding is discussed. Regarding Figure V-2-24, if the left block is coded in GMC, the candidate predictor is obtained as the averaged value of the pel-wise motion vectors in the left block. Therefore, "[t]he candidate motion vector predictor from the reference macroblock…is obtained as the *averaged value* of the pel-wise motion vectors in the macroblock.

In this respect, independent claim 18 is distinguished from ISO/IEC 14496-2 in that a motion vector of a block located only in a corner of a co-located macroblock is obtained and motion compensation is performed for the current block to generate a predictive image of the current block, based on a result of a judgment whether a size of the obtained motion vector is within a predetermined range or not. Whereas, in ISO/IEC 14496-2 a motion vector of a left block (GMC) is located next to a current block and motion compensation is performed to obtain a candidate motion vector predictor from the reference co-located macroblock using an averaged value of all the motion vectors.

Accordingly, Applicants respectfully submit that ISO/IEC 14496-2 fails to teach or suggest each and every element of independent claim 18, and request that the rejection be withdrawn.

Claim Rejections under 35 U.S.C. § 103(a)

Claims 19 – 26[*sic*] have been rejected under 35 U.S.C. § 103(a) as being unpatentable over ISO/IEC 14496-2 in view of U.S. Patent Publication No. 2002/0172284 to Peng et al.

Applicants respectfully traverse this rejection on the following basis. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of

success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

ISO/IEC 14496-2 has been discussed above. The Examiner cited Peng et al. in an attempt to cure the deficiencies of ISO/IEC 14496-2. The Examiner alleges that Peng et al. teaches the features of dependent claims 19, 20, 25, and 26. In addition, the Examiner alleges that the combination of ISO/IEC 14496-2 and Peng et al. teaches the features of independent claims 21 – 24, *inter alia*,

Independent claim 22:

"…a motion vector obtaining unit operable to obtain a motion vector of a block located only in a corner of the co-located macroblock,…a judging unit operable to judge whether a size of the obtained motion vector is within a predetermined range or not; and a motion compensation unit operable to perform motion compensation…, based on a result of said judging unit." [*Emphasis added*]

Independent claim 23:

"…obtaining a motion vector of a block located only in a corner of a co-located macroblock,…judging whether a size of the obtained motion vector is within a predetermined range or not; and performing motion compensation for the current block to generate a predictive image of the current block, based on a result of said judging." [*Emphasis added*]

Independent claim 24:

"…a motion vector obtaining unit operable to obtain a motion vector of a block located only in a corner of the co-located macroblock,…a judging unit operable to judge whether a size of the obtained motion vector is within a predetermined range or not; and a motion compensation unit operable to perform motion compensation…, based on a result of said judging unit." [*Emphasis added*]

Peng et al. does not teach or suggest such features. Instead, Peng et al. teaches a scalable MPEG-2 video decoder with selective motion compensation. Accordingly, Peng et al. fails to cure the deficiencies of ISO/IEC 14496-2 in that there is no discussion anywhere in the reference regarding obtaining a motion vector of a block located only in a corner of the co-located macroblock; judging whether a size of the obtained motion vector is within a predetermined

range or not; and performing motion compensation for the current block to generate a predictive image of the current block, based on a result of the judging, as recited in independent claim 18. Further, Peng et al. fails to teach or suggest the features of independent claims 22 – 24 which are similar to independent claim 18.

Therefore, as the combination of ISO/IEC 14496-2 and Peng et al. fails to render obvious independent claims 22 - 24, Applicants respectfully request that the rejection be withdrawn.

Claims 19, 20, 25 and 26 depend from one of claim 18 or 24. Applicants submit that Peng et al. fails to cure the deficiencies of ISO/IEC 14496-2, as discussed above, with respect to claims 18 and 24. Accordingly, Applicants submit that claims 19, 20, 25 and 26 are patentable at least by virtue of their dependency.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may best be resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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April 7, 2008